



Enhancing Hospital Performance with Patient Centered Care and Safety Management by empowering Knowledge Management through Hospital Collaboration: A Comprehensive Analysis in Indonesia

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(Received: 07 January 2024

Revised: 12 February 2024

Accepted: 06 March 2024)

KEYWORDS

Patient Centered Care, Hospital Collaboration, Hospital Performance, Case Managers.

ABSTRACT:

This paper investigates the profound impact of PCC (Patient-Centered Care) on hospital performance and explores the role of hospital collaboration in promoting Patient-Centered Care adoption in the Indonesian healthcare context. By empowering knowledge management and implementing it with consideration of its complexity in Indonesian hospitals, healthcare systems strive to provide high-quality and patient-centric services. Understanding the dynamics of Patient-Centered Care and its interplay with collaborative efforts becomes paramount. Drawing on a comprehensive analysis of hospitals across Indonesia, this study employs a mixed-methods approach to examine the relationship between Patient-Centered Care and various performance indicators, including patient satisfaction, clinical outcomes, and operational efficiency, as well as collaboration in different types of hospitals in Indonesia (Type A, Type B, and Type C) and their complexities. By analyzing both quantitative data from hospital records and qualitative insights from healthcare professionals, administrators, and patients, a nuanced understanding of the benefits and challenges associated with Patient-Centered Care implementation is garnered. Furthermore, the paper delves into the pivotal role of hospital collaboration as a facilitator for effective Patient-Centered Care delivery. Collaborative efforts among healthcare institutions, including knowledge sharing, interdisciplinary coordination, and resource pooling, can significantly amplify the positive outcomes of Patient-Centered Care. The study investigates the mechanisms through which collaborative networks influence the adoption and sustainability of Patient-Centered Care initiatives, shedding light on the strategies that foster a culture of patient-centeredness within diverse hospital settings. In the context of Indonesia's diverse healthcare landscape, characterized by varying levels of resources and infrastructure, this research identifies contextual factors that impact the successful integration of Patient-Centered Care and collaboration. It also highlights potential barriers such as organizational resistance, communication gaps, and limited resources, proposing recommendations for addressing these challenges. The findings of this study have implications for hospital administrators, policymakers, and healthcare practitioners seeking to enhance patient-centered care delivery and overall hospital performance. The insights generated contribute to the global discourse on healthcare transformation and emphasize the significance of collaboration in advancing patient-centered approaches, ultimately improving healthcare outcomes and patient experiences in Indonesia and beyond.

1. INTRODUCTION

The issue of disparity and inequity in healthcare access, as well as the quality of care and performance, is a prominent concern within the Indonesian healthcare system. The imbalance discussed below has a direct impact on the burden borne by the general people,

notably in the context of hospital care. In the context of globalization, during periods of turbulence such as the ongoing Covid-19 pandemic, collaborative efforts emerge as a viable answer for enhancing medical services within hospitals. This collaboration can take place at both the national and international levels,



involving several agencies. The objective of this collaboration is to enhance Indonesia's capacity to improve health services and performance across various communities.

The Asia Medical Week's Indonesian Outreach program aims to provide medical assistance and support to the local population in Indonesia. The inaugural International Hospital Capacity Building Forum aims to facilitate collaboration among hospitals in Indonesia and other countries, providing a platform for identifying and addressing prevailing challenges while enhancing the operational capabilities of each participating hospital.

Establishing Effective Collaborations, Dr. Rukmono Siswihanto, M.Kes., Sp.OG(K), stated that this collaboration encompasses three key areas of cooperation aimed at addressing prevailing disparities: human resources, infrastructure, and technology. The event spanned a duration of two days, specifically from Friday, November 22nd to Saturday, November 23rd, 2019, at the esteemed Hotel Tentrem Yogyakarta.

The Dean of Medicine, Health and Nursing at Gadjah Mada University (FK-KMK UGM), Professor Dr. Ova Emilia, M.Med.Ed., Ph.D., Sp.OG(K), aims to foster collaboration and establish partnerships by participating in the Asia Medical Week initiative. This platform allows for the exchange of up-to-date knowledge and facilitates progress in the field, enhancing capabilities in medical education, hospital administration, and health technology. The speaker expressed their intention to not only contribute to the advancement of innovation in health services and applied research but also to foster a safer and more prepared global health landscape, thereby benefiting the broader community. It is anticipated that the enhancement of human resources will be achieved through the implementation of human resource development strategies, which involve fostering increased collaboration and cooperation across hospital facilities.

An additional illustration can be found in the Indonesia Health Insurance (JKN) program, which was initiated in 2014 under the auspices of the Indonesian government. The primary objective of this initiative is to ensure the provision of comprehensive healthcare services to the whole population of Indonesia. In order to ensure the provision of services and coverage of care expenses for the insured population, hospitals included in the JKN program are required to engage in collaborative efforts. This includes efforts aimed at fostering partnerships among enterprises, academic institutions, and

governmental entities to facilitate the advancement of novel technology and products. The government is allocating resources towards infrastructure development and implementing initiatives to assist startups and small enterprises. Additionally, there is a concerted effort to encourage the utilization of digital platforms to foster collaboration among innovators and promote the exchange of ideas. Furthermore, the government is seeking to attract international investment to bolster the advancement of innovation ecosystems within the nation. The economic growth and competitiveness of Indonesian hospitals can be significantly enhanced by innovation and collaboration, as supported by the government's development initiatives.

Indonesia possesses a publicly funded healthcare system alongside an emerging private healthcare sector. The oversight of the public healthcare system falls under the purview of the Ministry of Health, with funding primarily provided by the government. A diverse range of medical facilities, including hospitals, clinics, and health centers, are available nationwide to offer healthcare services to the general people. Nevertheless, there exists significant variation in the quality of healthcare and the accessibility of resources, contingent upon geographical location and the specific type of healthcare facility.

In Indonesia, the distribution of hospitals can be categorized based on the urban-rural divide, wherein larger cities tend to possess more sophisticated infrastructure and more skilled personnel compared to their rural counterparts. The healthcare system in Indonesia is widely regarded as subpar in comparison to neighboring countries within the area, primarily attributable to insufficient financing and a scarcity of healthcare personnel. The healthcare system in Indonesia exhibits notable diversity, encompassing a combination of state and private hospitals. The collaboration among hospitals in Indonesia encompasses various modalities, including resource sharing, medical expertise exchange, and the implementation of cooperative projects or initiatives.

The healthcare strategy sometimes referred to as "patient-centered care" prioritizes the central role of the patient in the delivery of treatment, emphasizing the consideration of the patient's choices, values, and requirements as primary factors in the decision-making process. The concept of patient-centered care has been established for a considerable duration, although in recent times, it has garnered increasing prominence to



enhance the quality of healthcare and the outcomes experienced by patients. The origins of the investigation into the impact of patient-centered communication on patient outcomes may be traced back to the background research conducted on patient-centered care throughout the 1950s and 1960s, as undertaken by psychologists and social scientists. The enhancement of patients' happiness with their care and health outcomes was observed when healthcare practitioners demonstrated active listening, recognition of their emotions and concerns, and involvement in the decision-making process. The World Health Organization (WHO) in the 1970s provided a definition for patient-centered care, characterizing it as an approach to healthcare that demonstrates respect for and responsiveness to the unique preferences, requirements, and values of each individual patient. The term in question has been widely embraced and implemented by healthcare organizations and policymakers globally. The Institute of Medicine (IOM) produced several studies during the 1990s advocating for a significant transformation in healthcare that prioritizes patient-centered treatment. In addition to safety, effectiveness, efficiency, timeliness, and equity, patient-centeredness has been identified by the Institute of Medicine (IOM) as one of the six areas of excellent care.

Nurdin and Wibowo (2021) assert that patient safety remains a significant obstacle inside the medical industry. The narrative evaluation revealed that health workers possess limited competences in comprehending patient safety, which, when coupled with a working environment characterized by a culture of shaming and blaming, contributes to the inadequate reporting of patient safety occurrences. The level of safety in hospitals in Indonesia exhibits variability contingent upon the individual facility and geographical context. Hospitals located in urban areas often possess superior infrastructure and highly skilled personnel in comparison to their counterparts situated in rural regions. Furthermore, the healthcare system in Indonesia has raised significant concerns due to challenges including insufficient financial resources and a scarcity of healthcare practitioners. It is advisable to conduct thorough research and carefully evaluate the reputation of a particular hospital prior to obtaining medical care at that institution.

The concept of "hospital performance" pertains to the evaluation of a hospital's efficacy in delivering high-quality care, attaining positive patient outcomes, and

efficiently managing resources. Over the course of numerous decades, much research has been undertaken to assess and evaluate the performance of hospitals, with a notable shift towards emphasizing the enhancement of healthcare quality in more recent times. During the 1990s, the Institute of Medicine (IOM) published several publications that underscored the imperative for enhancing the quality of healthcare. The Institute of Medicine (IOM) delineated the key dimensions of quality care, encompassing efficacy, safety, patient-centeredness, timeliness, efficiency, and equity. The studies published by the Institute of Medicine (IOM) have generated significant interest in the measurement of hospital performance as a method for assessing the efficacy of quality improvement initiatives and finding areas for improvement.

Various organizations have since developed frameworks for assessing hospital performance. The Balanced Scorecard, a paradigm that evaluates hospital performance across four distinct viewpoints, is extensively employed in various contexts. The key areas of focus in this study were financial performance, client (patient) satisfaction, internal procedures, and development and learning. The assessment of the hospital's financial performance is conducted from a financial standpoint, whereas the evaluation of customer happiness and experience is conducted from a customer-centric perspective. The hospital's capacity for innovation and expansion is assessed via the lens of learning and growth, while the efficiency and efficacy of the hospital's care delivery are evaluated from the perspective of internal processes.

Based on the previous description about the problematics, phenomenon, one of the objectives of this research is to fill whether open innovation would lead an important role in the sustainability in hospital performance that can be implemented on a managerial level, where patient centered care can achieve hospital performance that highly sustainable through hospital collaboration.

2. LITERATURE REVIEW

2.1. Resources-Based View (RBV)

The success of a firm is contingent upon its allocation of resources and its ability to effectively convert them into financial gains. Resources can be classified into two distinct categories: intangible resources and physical resources. Physical resources encompass a range of tangible assets, such as machinery, medical supplies,



buildings, and land. On the other hand, intangible resources such as culture, awareness, and expertise have a contrasting nature. According to Ferreira, Azevedo, and Ortiz (2010).

According to economists, enhancing a company's performance is considered a competitive advantage. The competitive advantage of a corporation is derived from its fixed resources. The notion often known as the resource-based view theory (RBV) arises from the existence of fixed resources. The resource-based view theory (RBV) is a theoretical notion that has emerged from extensive study conducted by economists globally. This notion is widely regarded as providing organizations with the means to develop a competitive advantage. According to Barney and Wright (2001), The Resource Based View (RBV) thesis, initially formulated by Wernerfelt (1984), posits that an organization's resources and capabilities play a crucial role in determining its competitiveness and performance. These resources and capabilities serve as the fundamental building blocks upon which the company's success is built. The Resource-Based View (RBV) framework is a valuable approach for examining and discerning strategic advantages by assessing a company's assets, functions, and function evaluation. The fundamental principle of the Resource-Based View (RBV) hypothesis posits that a firm can enhance its competitive position by effectively leveraging the resources of the target company, based on its capacity to attain a competitive advantage (Wernerfelt, 1984).

The Resource-Based View (RBV) offers an organization-specific lens through which one can analyze the factors that contribute to or hinder a company's success in a competitive market. The Resource-Based View (RBV) framework possesses the capacity to introduce, cultivate, and extend products within the market. However, it is important to note that not all resources possess the strategic potential to generate a competitive advantage. Competitive advantage may be achieved through the presence of resource heterogeneity and resource immobility. This resource-based view (RBV) can serve to identify the company's resources and capabilities, which in turn can contribute to the establishment of a sustainable competitive advantage in the long run. The Resource-Based View (RBV) posits that a firm's competitive advantage and overall performance are contingent upon its ownership and control of key assets.

2.2. Patient Centered Care

Patient-centered care (Patient Centered Care) represents a break from traditional disease-centric paradigms and is grounded in the principles of holistic healthcare (Epstein, 2000). During the 1970s, patient-centered care started to experience a surge in popularity, and in recent times, it has acquired significant traction due to endorsements from medical, public, and other organizations. The importance of defining and measuring patient-centered care (Patient Centered Care) outcomes is growing due to the increased interest in Patient Centered Care. The concept of Patient Centered Care is determined by the locations and perspectives that are depicted. A comprehensive examination of the existing literature revealed the identification of four distinct sources that provide definitions of Patient Centered Care. The perspectives encompassed in this category consist of patient perspectives, therapeutic perspectives, economic perspectives, and perspectives on public policy.

The study conducted by the Picker Institute and Harvard Medical School (2019) highlights the significance of eight elements of Patient-Centered Care, which are considered to be of utmost importance to patients respect for patients' values, preferences, and expressed needs, coordination and integration of care, information and education, physical comfort, emotional support and alleviation of fear and anxiety, involvement of family and friends, continuity and transition, and access to care. Consider the patient's perspective to understand patient centricity. Patient-centered care (Patient Centered Care) has not yet been established, but patient preferences for healthcare interactions have. Patient care priorities include respect, civility, capability, efficacy, patient input in decision-making, treatment duration, availability, and information. Excellent communication and comprehensive research are needed for patient therapy (Jennings et al., 2005). For psychiatric and symptomatic patients, communication, relationships, and health promotion were the most important primary care preferences (Little et al., 2001). Patients prefer polite and competent care and knowledge, according to Jennings et al. This highlights the need for patient-centered care.

Patient preferences are prioritized in patient-centered care. This strategy emphasizes patient participation and collaboration between doctors and patients to attain the best results. Management has many patient-centered care ideas. Empathize with patients' needs and experiences, managers. Management must listen to



patients and their families and speak openly and honestly to ensure healthcare team members communicate well with patients and each other. This demands clear speaking, no medical jargon, and complicated medical data explanations. Managers should encourage patient participation in treatment. Respecting patient preferences and values, engaging them in decision-making, and providing them with information and resources to make informed decisions are vital since patients often need continuous care. Managers should help patients transfer between providers and care settings. Finally, management must prioritize quality and patient safety. Monitoring and enhancing care quality and establishing rules and systems to prevent errors and adverse events are required. Patient-centered care makes patients first and provides the best treatment. Collaboration, communication, and development are needed to improve patient outcomes and healthcare delivery.

2.3. Safety Management

Safety management systems are organizational structures, roles, procedures, policies, and resources used to control, build trust, and promote health and safety in health care. This should meet the organization's lowest safety level, which is unacceptable. Risky safety levels in a company change owing to organizational issues and responsibilities. They use safety precautions to keep this level at the lowest possible rate. Thus, conventional safety management interprets this idea as a response to events. However, a new safety management method addresses this issue to maintain an appropriate risk level in the business. A future-focused perspective is crucial for understanding this notion. Thus, hospital management of all ranks must ensure safety. To attain safety, they must form an effective management team and plan and create conditions that minimize destructive events.

Safety management is a systematic strategy to preventing accidents, injuries, and illnesses in an organization. Safety management in healthcare encompasses policies, procedures, and systems to protect patients, staff, and visitors. Identification and assessment of patient safety hazards, including harm likelihood and severity. A safety-focused workplace that encourages reporting mishaps and near-misses. Staff training on safety including safety policies, procedures, and systems. Improve continuously: Safety management system assessment and evaluation to identify areas for improvement and assure effectiveness and relevance.

Healthcare safety management improves patient outcomes, reduces adverse occurrences, and improves care quality. Healthcare organisations may make patients, workers, and visitors safer by prioritising safety and managing safety systematically.

Safety management includes organizational structure, accountability frameworks, and policies and procedures. Li and Guldenmund (2018) define safety management as attaining safety functions. Safety management has been a major academic and practical concern in recent decades (Hale, 2003; Wang et al., 2017). Safety management protects employees and property from unacceptable safety risks and promotes organizational safety, according to Li and Guldenmund (2018). The global economy's collapse and mounting uncertainty have put pressure on safety management in most firms to do more with less. Additionally, improved strategies must be found to allocate safety resources efficiently while maintaining strong safety performance throughout the business (Wang et al., 2017). Safety data is vital for convincing risk counteraction and educated security direction, making it the soul of the authoritative security board. However, safety management—particularly decision making—is difficult and requires a wide range of high-quality safety data (Huang et al., 2017). In this age of big data, intelligence, and Industry 4.0, computational safety science is a new paradigm for safety science. Safety data and information have become essential for safety management.

2.4. Knowledge Management

Recent innovations in the field of information processing have led to significant developments in the utilization, production, storage, and reuse of knowledge. Therefore, numerous enterprises operating within the hospital industry have undertaken measures to adopt knowledge management (KM) in the past few decades (Jalilvand, Pool, Khodadadi, & Sharifi, 2019). KM has the potential to enhance an individual's ability to effectively utilize existing information to acquire new value and incorporate it into established routines and practices. This, in turn, enables organizations to gain a competitive edge in the market. This collection of processes encompasses knowledge acquisition, dissemination, and implementation; knowledge documentation, acquisition, and generation; and knowledge transfer and safeguarding. The lineage of knowledge management (KM) within the field of strategic supply chain management (SSC) can be traced to its origins in the knowledge-based perspective of



organizational strategy. According to the Resource-Based View (RBV), the possession of distinctive capabilities and the ability to generate and exploit important information have a positive impact on organizational outcomes. The knowledge-based view offers a theoretical framework to support the assertion that knowledge management has an impact on social and sustainable practices in the hospitality sector.

2.5. Hospital Collaboration

Hospital collaboration refers to the practice of hospitals engaging in cooperative efforts to share medical resources. The literature has documented two distinct forms of hospital partnership. Firstly, hospitals possess diverse medical resources and professionals that facilitate collaborative efforts. This form of hospital collaboration has the potential to mitigate the duplication of medical resources or personnel. The monitoring center of the collaborating hospitals possesses the capability to facilitate the transfer of patients to the appropriate hospital, taking into consideration their specific medical state. In the second form of partnership, hospitals possess comparable medical resources, albeit varying in capacity and patient volume due to factors such as reputation and geographical location. Renowned medical facilities tend to draw a larger patient population, hence leading to increased waiting durations. In the event of hospital collaboration, patients may be referred from hospitals with higher patient volumes to those with lower patient volumes. There exists a twofold advantage associated with the collaboration between hospitals, wherein hospitals can circumvent the need to acquire costly medical resources, while patients can receive prompt treatment at any accessible hospital, thereby enhancing the quality of their care. According to Chen (2017), Various forms of collaboration can be observed, encompassing partnerships, alliances, networks, and mergers. The principal aim of hospital collaboration is to optimize patient outcomes, mitigate expenses, boost operational efficiencies, and foster the exchange of resources and expertise.

Numerous theories have been established to elucidate the notion of hospital collaboration and to provide a framework for fostering collaborative alliances among hospitals. One of the most notable theories in this field is resource dependence theory. According to resource dependence theory, companies rely on external resources, including other organizations, to effectively achieve their goals and objectives. Within the realm of

hospital collaboration, the significance of inter-organizational interactions and the sharing of resources, including knowledge, skill, and technology, is underscored by resource dependence theory to attain improved outcomes. The subsequent concept, known as social exchange theory, posits that the establishment of relationships across organizations is predicated upon the reciprocal exchange of resources and benefits. Within the realm of hospital collaboration, the social exchange theory underscores the significance of mutual advantages and the cultivation of trust and reciprocity in collaborative associations. The conceptual framework of network theory posits that organizations may be seen as nodes within a network. This theoretical perspective places significant emphasis on the interconnectedness of organizations and the consequential exchange of resources, information, and influence that occurs between them. Within the realm of hospital collaboration, network theory emphasizes the significance of inter-organizational networks and the role that trust, communication, and coordination have in fostering effective collaboration. According to institutional theory, organizations are impacted by the prevailing norms, values, and expectations of the broader society, leading them to experience external pressures to comply to these societal standards and values. Within the realm of hospital collaboration, institutional theory emphasizes the significance of ensuring that collaborative partnerships are congruent with the prevailing norms and values of the healthcare system.

Cost-effective medical treatment is patient-centered. Despite the initial investment in staff training and technology, it may enhance patient outcomes and save expenses. Lowering hospital readmissions is a major cost-saving strategy for patient-centered care. Active participation in care and tailored support and education help patients follow their treatment plan and avoid complications that could lead to readmissions. There may be huge cost savings for hospitals and healthcare systems. Health providers may benefit financially from patient-centered care since it increases patient loyalty and satisfaction. Happy patients will tell others and return, helping you establish a loyal patient base and make more money. Furthermore, patient-centered care may improve resource use. Participating in decision-making and personalizing care to patients' needs can reduce the likelihood of unnecessary tests, procedures, and treatments. Saving money may reduce patient risk.



Last, patient-centered treatment may improve population health and save society money. Clinicians can reduce chronic disease and other costly health issues by focusing on prevention and early intervention. Healthcare providers and society can profit financially from patient-centered care. It may require an initial investment but lead to greater results and lower costs.

2.6. Hospital Performance

Multiple theories have been created to elucidate the notion of hospital performance and to provide guidance for the assessment and enhancement of hospital performance. One of the prevailing theories in the field is the Resource-Based View (RBV) theory, which posits that an organization's resources and capabilities have the potential to serve as a long-lasting competitive advantage. The RBV theory emphasizes the significance of comprehending the distinct resources and capabilities possessed by a hospital, including its human capital, technology, and reputation, within the framework of hospital performance. This understanding is crucial for enhancing performance and attaining a competitive advantage (Veillard, 2005). The Lean management theory is a management concept that places significant emphasis on the continuous improvement and eradication of inefficiencies in all facets of a company. Within the realm of hospital performance, lean management theory emphasizes the significance of waste reduction, process improvement, and operational streamlining as means to increase patient outcomes, minimize expenses, and elevate the overall efficacy of the hospital. Total Quality Management (TQM) is a

managerial ideology that places significant emphasis on the paramountcy of quality across all facets of a business. Within the realm of hospital performance, the notion of Total Quality Management (TQM) emphasizes the significance of ongoing enhancement and the incorporation of quality across all facets of hospital functioning, encompassing patient care, operations, and administration.

Strategic management theory pertains to the process of developing and executing significant objectives and actions by a company's senior executives, acting on behalf of stakeholders. This process involves evaluating available resources and analyzing both the internal and external contexts in which the organization operates. Within the realm of hospital performance, strategic management theory emphasizes the need of taking into account the wider context of the healthcare sector. It underscores the necessity for hospitals to formulate and execute plans that are in line with their objectives, available resources, and the overarching healthcare environment. These theories establish a fundamental basis for comprehending the intricate and interconnected elements that impact the performance of hospitals. Moreover, they can guide the formulation of approaches aimed at assessing and enhancing hospital performance. Through a comprehensive examination of these theoretical frameworks, hospitals can acquire a more profound comprehension of the intrinsic and extrinsic elements that influence their operational effectiveness. Consequently, hospitals can formulate efficacious strategies aimed at augmenting performance and attaining superior results (O'Brien, 2008).

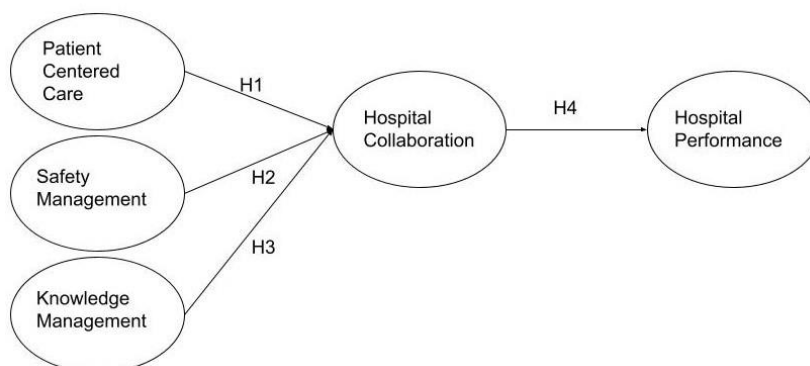


Figure 1. Research Model

3. METHODOLOGY

The collection of data will be facilitated through the administration of an online survey targeting hospital

managers in Indonesia who hold a limited level of professional expertise. The current investigation utilizes a survey instrument that incorporates a standardized 6-



point Likert scale for measuring purposes. The instrument is employed for the purpose of evaluating the attitudes, perspectives, and perceptions of individuals or collectives towards a given social issue (Sugiyono, 2019).

Hair Jr. et al. (2014) suggest employing the Structural Equation Model (SEM) as a statistical tool to determine the appropriate sample size. Based on the theoretical framework, it is imperative that the quantity of samples surpasses the quantity of indicators under evaluation. The computation for ascertaining the quantity of samples entails the multiplication of the number of indicators by a factor of 10. The number of samples is equivalent to 10 times the value of the variable "n", which represents the number of indicators. Based on the inclusion of 29 indicators and 5 variables in this study, it is determined by the algorithm that a minimum sample size of 290 respondents is required for analysis. The study encompasses a comprehensive population of hospitals in Indonesia, specifically those classified as type A, B, and C. The total number of hospitals included in this population is said to be 2421 (Millennials et al., 2020). The research sample consists of 290 participants, all of whom hold the position of field managers and possess a minimum of one year of professional experience. Participants who have less than one year of experience will be eliminated from the sample, and the analysis will focus exclusively on those who have such experience. The primary data was obtained by the administration of a questionnaire using a face-to-face technique, and its distribution was carried out by the IMPPI (Ikatan Manager Pelayanan Pasien Indonesia) organization.

Class A hospitals refer to teaching hospitals situated in prominent urban areas, which provide sophisticated medical services and state-of-the-art facilities. The medical facility is furnished with contemporary medical apparatus and staffed by extensively qualified medical personnel.

Class B hospitals are healthcare facilities that offer essential medical services and are typically situated in district-level regions. The organization provides a range of services, including emergency care, outpatient treatment, and inpatient care.

Class C hospitals are healthcare facilities that offer essential medical services and are situated in rural regions. The establishment provides fundamental healthcare services, encompassing outpatient care,

maternal and child health services, as well as immunization procedures.

Class D hospitals are healthcare facilities that offer essential medical services and are typically situated in geographically isolated regions. The organization provides a range of services including outpatient treatment, maternal and child health services, and vaccines.

Furthermore, it is worth noting that there exist specialized hospitals that are categorized into Class A, B, and C. The healthcare facilities offer specialist medical treatments, including but not limited to cancer therapy, cardiovascular care, and neurology.

It is noteworthy to acknowledge that Indonesia encompasses both governmental and private healthcare facilities. Public hospitals are under the governance and administration of the government, whereas private hospitals are owned and managed by non-governmental entities. Private hospitals are characterized by a higher probability of possessing contemporary amenities and advanced medical equipment, albeit at a potentially higher cost compared to their public counterparts. In each district of Indonesia, there exists a diverse array of health facility types, encompassing health posts, health clinics, and hospitals. Hospitals are categorized into many classifications according to the range of services they offer and the level of care they deliver. Selecting a hospital that aligns with one's requirements and is conveniently situated in proximity to one's workplace or housing holds significant importance. In light of the many hospital classifications in Indonesia, it is imperative to categorize the hospital types for the purpose of this research.

Based on the findings, it can be observed that a majority of the participants, specifically 81%, are affiliated with general hospitals, with the remaining responses being associated with specialty hospitals. Permenkes No. Hospitals are categorized into General Hospitals, which offer comprehensive healthcare services across various fields and diseases, and Special Hospitals, which primarily focus on providing specialized services in a specific field or type of disease, based on disciplines, age groups, organs, diseases, or other specific criteria, as outlined in Act 56 of 2014. The potential participants in this study encompass individuals affiliated with general hospitals, such as hospital administrators, department heads, and healthcare professionals who actively engage in multidisciplinary collaboration. This study aims to



provide an in-depth understanding of the interdepartmental dynamics within a hospital setting, as well as the potential collaborations between the hospital and external healthcare providers. The participants of this study will primarily consist of medical specialists, surgeons, and researchers who actively engage in collaborative efforts within their respective areas of expertise. Additionally, it could establish collaborative partnerships with other specialist hospitals or general hospitals in order to deliver comprehensive healthcare services.

3.1. Inner Model and Outer Model Test

The outer model will be tested using convergent validity, which is evaluated by the loading factor and average variance extracted (AVE) parameter. Upon examination of the AVE (Average Variance Extracted) values, it is observed that all variables exhibit values greater than 0.5. The Fornell-Larcker Criterion cross-loading parameter is typically used to assess discriminant validity.

Next, the researchers conducted tests on the composite reliability and Cronbach's Alpha coefficient. The reliability of the variable is deemed high as all variables exhibit a coefficient over 0.7. All variables exhibit Cronbach Alpha values beyond the threshold of 0.7.

Table 1. Validity and Reliability Test

Observed Variable	Average Variant Extracted	Cronbach's Alpha
PCC	0.649	0.727
SM	0.717	0.901
KM	0.667	0.831
HC	0.651	0.894
HP	0.692	0.955

3.2. Hypothesis Testing

Hypothesis testing involves the utilization of path coefficient output, which often includes measures such as the mean, standard deviation, and t-values. The hypothesis regarding the relationship between the variables under consideration is accepted if the p-value is less than 0.05 and the t-statistic value from the table exceeds 1.96. The null hypothesis is rejected when the p-value exceeds the significance level of 0.05 and the absolute value of the t-statistic is less than the critical value of 1.96. The coefficient value of the route can be used to assess the influence of each exogenous variable

on the endogenous variable. The Original Sample (O) has a score of 0.058, and the Sample Mean (M) is 0.061. The Standard Deviation (STDEV) for this sample is 0.021. The T-statistics ($|O/STERR|$) value is 3.395, indicating a significant difference from the null hypothesis. The P-value associated with this sample is 0.001, further supporting the rejection of the null hypothesis. Therefore, it may be inferred that the hypothesis is supported based on the evidence presented. The R Square Value of HC is 0.647 and HP is 0.544 which means the model could explain 64.7% of HC and 54.5% of HP.

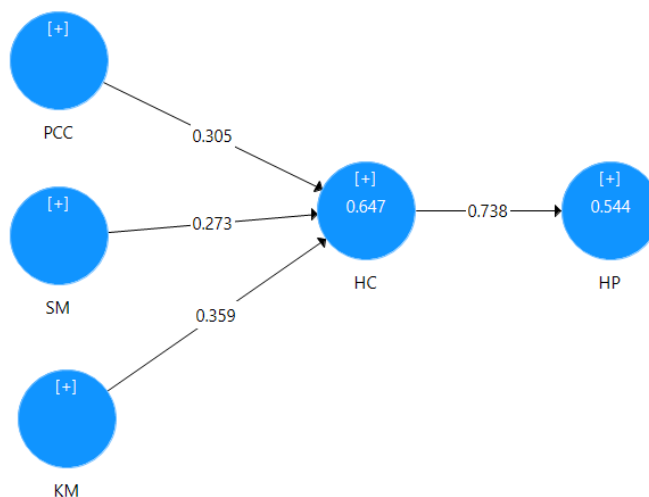


Fig. 2: Structural Model

Table. 2: Hypothesis Result

	T Statistic	P-Value	Result
Patient-Centered Care -> Hospital Collaboration	6,757	0,000	Accepted
Safety Management -> Hospital Collaboration	3,865	0,000	Accepted
Knowledge Management -> Hospital Collaboration	4,841	0,000	Accepted
Hospital Collaboration -> Hospital Performance	25,638	0,000	Accepted

4. DISCUSSION

Out of 306 participants, 63% were female. 37% of respondents were 45–54 years old, and 31% were 24–34. In a hospital or healthcare setting, "respondent by gender" refers to those who are actively participating in survey answers or healthcare-related research. Due to gender differences in healthcare experiences and results, this information may help explain them. For instance, a hospital's patient satisfaction survey may ask patients to declare their gender. This study seeks to inform the hospital about gender-related differences in patient satisfaction and healthcare experiences. Similarly, researchers may collect gender data on study participants while testing a treatment or medicine. This data is then analyzed to determine gender differences in treatment outcomes. Another interesting finding is that 73% of research participants work for type C hospitals and 49% have less than three years of professional experience. Long-serving Members of Provincial Parliament (MPP) may have extensive healthcare collaboration expertise. Participants can provide valuable insights regarding collaborative processes, challenges, and effective ways to improve hospital

cooperation, both within and outside.

Additionally, 68% of responders had NERS education. The offered information pertains to the educational credentials of healthcare workers conducting surveys or research. This information may help understand healthcare workers with different educational backgrounds. Hospital workers' education and training depend on their employment and obligations. Medical professionals like doctors and nurses have more education and training than administrative or support staff. Data on hospital staff education may help identify differences in experiences and perspectives among people in different roles and with different degrees. Data on respondents' educational attainment in a hospital setting may reveal healthcare professionals' traits and experiences, helping improve healthcare delivery and outcomes.

Note that 98% of respondents' hospitals have BPJS facilities. Hospital collaboration involves public and private hospitals, clinics, and other healthcare professionals working together. Hospital partnership in BPJS involves multiple healthcare providers providing medical care to beneficiaries. Hospitals that work with



BPJS aim to provide prompt and appropriate medical care to eligible patients. Patient-centered treatment for BPJS beneficiaries includes respect, cultural awareness, and alignment with the patient's medical history and personal circumstances. Open innovation may also involve asking patients and healthcare providers for feedback to improve care, operations, and system issues. Understanding that most BPJS users are hospital employees is key.

The t-statistic value of 3.395 is greater than the critical value of 1.96, indicating statistical significance. Additionally, the P-value of 0.001 is less than the significance level of 0.05, further supporting the conclusion that there is a substantial influence of Patient Centered Care on HP through HC. The coefficient value of 0.058 indicates a positive relationship between Patient Centered Care and HP. In order to establish the acceptance of the hypotheses, it is necessary to demonstrate that the Pearson correlation coefficient (Patient Centered Care) exerts a positive and statistically significant impact on the dependent variable, namely HP. The study examines the impact of Patient Centered Care on Hospital Performance, specifically focusing on the role of Hospital Collaboration. This idea is substantiated by prior studies conducted by Al-Nawafleh et al. (2021), Saeed et al. (2020), Rajabzadeh et al. (2020), and Ozmen et al. (2019). The research conducted by Al-Nawafleh et al. (2021) aimed to examine the correlation between patient-centered care (Patient Centered Care) and hospital performance, with a focus on the mediating role of hospital collaboration. The findings of the study indicate that Patient-Centered Care has a statistically significant and positive impact on the level of collaboration inside hospitals. Furthermore, this increased collaboration is found to have a statistically significant and beneficial influence on hospital performance. A separate investigation conducted by Saeed et al. (2020) explored the influence of Patient-Centered Care on the performance of hospitals, with interdepartmental collaboration serving as a mediating factor. The results of the study revealed that participative and collaborative communication (Patient Centered Care) exerted a favorable and statistically significant impact on the level of collaboration across different departments within the hospital. Furthermore, this enhanced interdepartmental collaboration was found to have a positive and statistically significant influence on the overall performance of the hospital. In contrast, a study conducted by Rajabzadeh et al. (2020) examined

the effects of patient-centered care on hospital performance, with a focus on the role of intra-organizational collaboration as a mediating factor. The findings of the study indicate that the presence of a positive and statistically significant relationship exists between Patient Centered Care (Patient-Centered Care) and intra-organizational collaboration. Furthermore, it was observed that this collaboration has a positive and statistically significant impact on hospital performance. Finally, a study conducted by Ozmen et al. (2019) examined the correlation between patient-centered care, collaborative efforts inside hospitals, and overall hospital performance. The findings of the study indicate that Patient-Centered Care has a statistically significant and beneficial impact on hospital collaboration. Furthermore, it was observed that this collaboration, in turn, has a statistically significant and positive influence on hospital performance. The collective findings of these research indicate that the implementation of Patient-Centered Care has favorable outcomes in terms of hospital performance, with the underlying mechanism being the facilitation of collaborative efforts inside the healthcare institution. This underscores the need of fostering collaboration within healthcare institutions as a strategy for enhancing patient-centered care and hospital performance.

5. CONCLUSION AND SUGGESTION

The implementation of Patient Centered Care has been found to have a positive impact on Hospital Performance, particularly in the context of hospitals in Indonesia. This relationship is further influenced by the presence of Hospital Collaboration, which acts as a moderating factor. The healthcare strategy is one that places emphasis on prioritizing the needs, values, and preferences of patients. This strategy places significant emphasis on the significance of comprehending the distinct circumstances of each patient and customizing treatment approaches to cater to their specific requirements. Research has demonstrated that the implementation of patient-centered care has yielded favorable effects on multiple dimensions of healthcare, encompassing patient happiness, health outcomes, and healthcare utilization. This is achieved through fostering collaboration among healthcare providers to optimize hospital performance. By placing emphasis on the requirements and preferences of patients, hospitals have the potential to enhance patient happiness and foster trust, ultimately resulting in heightened levels of loyalty



and an increase in referrals. Moreover, the use of patient-centered care has the potential to provide enhanced health outcomes, encompassing ameliorated clinical outcomes and diminished instances of hospital readmissions. The establishment of efficient partnerships between hospitals and other healthcare institutions can provide positive outcomes in terms of care coordination and the provision of suitable services and support to patients. This phenomenon has the potential to result in improved health outcomes and decreased healthcare expenditures. By placing patient-centered care as a top priority and fostering successful teamwork, hospitals in Indonesia have the potential to enhance their overall performance and deliver improved healthcare services to their patients.

It is recommended that the hospital engage in collaborative efforts with other hospitals within Indonesia and on a worldwide scale, with the aim of exchanging best practices and fostering mutual learning. This approach has the potential to facilitate the identification of novel solutions aimed at enhancing patient-centered care and fostering a culture of ongoing improvement.

It is imperative for hospitals to engage in collaborative efforts not only within their own sector, but also across industries. An example of cross-industry implementation resulting from collaborative efforts within the healthcare sector involves the integration of technology into healthcare practices. Hospitals have the potential to engage in collaborative partnerships with technology businesses in order to foster the development of novel solutions aimed at enhancing patient care, optimizing operational efficiency, and mitigating financial burdens. One potential approach involves establishing collaborations between hospitals and software businesses to facilitate the development of electronic health records (EHR) systems, which enable seamless exchange of patient data across healthcare practitioners. The implementation of this approach has the potential to enhance the overall quality of healthcare delivery and mitigate the occurrence of medical errors.

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